

REMARKS

Favorable reconsideration of this application is respectfully requested.

Initially, applicants note that returned with the outstanding Office Action was a Form PTO-1449 based on an Information Disclosure Statement (IDS) filed in the present application on November 28, 2003. The returned Form PTO-1449 did not acknowledge consideration of two of the references listed therein, particularly references indicated at AO and AP. The Office Action indicates those references were not considered as they were submitted without an accompanying translation, English-language Abstract or Statement of Relevancy.

In reply, applicants note the IDS filed November 28, 2003, did provide a Statement of Relevancy for the noted references AO and AP. Attached to the present response is a copy of that previously filed Statement of Relevancy. In view of that filing applicants respectfully submit each of the references submitted in the IDS of November 28, 2003 should have been considered, and applicants thereby respectfully request that a new Form PTO-1449 be provided acknowledging consideration of each reference cited in that IDS.

Claims 1 and 5-35 are pending in this application. Claims 2-4 are canceled by the present response without prejudice. Claims 5-35 stand withdrawn from consideration as directed to a non-elected invention. Claims 2 and 4 were rejected under 35 U.S.C. § 112, second paragraph, which rejection is now moot in view of the cancellation of claims 2-4 without prejudice. Claims 1 and 3 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. patent 4,988,583 to Watkins et al. (herein “Watkins”). Claims 2 and 4 were rejected under 35 U.S.C. § 103(a) as unpatentable over Watkins. Those rejections based on Watkins are traversed by the present response as discussed next.

Independent claim 1 is amended by the present response to clarify a structure of the claimed liquid fuel cell power generator. Independent claim 1 now specifically further recites

“wherein the electromotive portion units are interposed between the first flow path plate and the second flow path plate and have different electrolyte films”.

With reference to Figures 6A-6C in the present specification as one non-limiting example, independent claim 1 as written is directed to a direct type liquid fuel cell power generator. An electromotive portion unit group composed of a plurality of electromotive portion units 208a, 208b that are formed by sandwiching an electrolyte film between an anode electrode including an anode catalyst layer and a cathode electrode including a cathode catalyst layer. A first flow path plate 202 has formed thereon a first flow path 209 disposed in abutment with the cathode electrode of the electromotive portion unit group and through which an oxidizing agent flows. A second flow path plate 201 has formed thereon a second flow path 203 disposed in abutment with the anode electrode the electrode unit group and through which a fuel flows. Further, the electromotive portion units 208a, 208b are interposed between the first flow path plate 202 and the second flow path plate 201 and have different electrolyte films. The first flow path 209 passes so as to come into contact with all cathode electrodes of the electromotive portion unit group without branching from an inlet thereof to an outlet, and is formed so as to come into contact with a cathode electrode of at least one electromotive portion unit a plurality of times.

Thereby, in independent claim 1 as written a plurality of electromotive portion units 208a, 208b that are independent of one another are interposed between a first flow path plate 202 and a second flow path plate 201, and thereby the flow path is disposed so as to come into contact with the electromotive portion units once or plural times. Thus, a fuel or an oxidizing agent can be supplied in uniform concentration to the electromotive portion units 208a, 208b.

Independent claim 1 as written is believed to clearly distinguish over Watkins.

The outstanding rejection cites Watkins to disclose a first flow path plate 15 having formed thereon a first flow path 22 and a not shown second flow path plate in abutment with the first flow path plate. In that respect applicants note the Office Action cites Watkins at column 4, lines 38-41 and at column 7, lines 9-14. At those portions Watkins discloses “[t]he fluid opening is connected to a source of fuel (not shown) for the plate adjacent the anode or a source of oxidant (not shown) for the plate adjacent the cathode”, and “[w]hile not shown, in multi-cell arrangements the other major surface of the plate may also include a continuous traversing channel. The two flow fields on opposite sides of such a single so-called ‘bi-polar’ plate supply the fuel gas to the anode of one cell and the oxidant gas to the cathode of the adjacent cell”.

Thereby, the outstanding rejection appears to rely on Watkins disclosing an adjacent cell to the cell such as shown for example in Figure 1. However, such a structure in Watkins does not correspond to the claimed features. Specifically, with such a structure in Watkins two abutting electromotive portion unit groups would each have their own flow path and would appear to be the same type of units. In contrast to such a structure in Watkins, in the claims as written “the electromotive portion units are interposed between the first flow path and the second flow path and have different electrolyte films”. Such a claimed structure clearly distinguishes from the noted teachings in Watkins. In contrast to Watkins, in the claims plural electromotive portion units are interposed between a same first flow path and a same second flow path, and also further have different electrolyte films. The abutting of two units in Watkins would not correspond to such a structure.

Thereby, amended independent claim 1 distinguishes over Watkins.

As no other issues are pending in this application, it is respectfully submitted that the present application is now in condition for allowance, and it is hereby respectfully requested that this case be passed to issue.

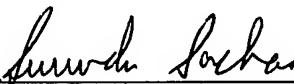
Respectfully submitted,

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: Masato AKITA, et al.

SERIAL NO: New Application

FILED: HEREWITH

FOR: DIRECT TYPE FUEL CELL POWER GENERATOR

STATEMENT OF RELEVANCY**Reference AA (5,863,671) on Form PTO-1449:**

This discloses plastic mono and bipolar collector plates for fuel cell. But a single serpentine channel in the plates are not designed coming and going between plural electrode membranes without branching.

Reference AO (6-60905) on Form PTO-1449:

This discloses plastic monopolar collector plate for fuel cell. But channels in the plate are not designed.

Reference AP 8-237696)on Form PTO-1449:

This discloses a bipolar collector plate which is shared by plural electrode membranes. But a single serpentine channel in the plate is not designed coming and going between plural electrode membranes without branching. (36~39 in Fig. 10)